



Avoidance and Minimization Measures for Bats in Georgia

Best Management Practices / Avoidance and Minimization

The best option for the conservation of bat species is to avoid disturbance of habitats and environments that at-risk species use. With a growing population and changing landscape, the complete avoidance of these habitats for project proponents will not always be possible. The next option is to limit or avoid disturbance to the species during critical life-history stages by preserving maternity roosting habitat and wintering habitat. Below is a list of avoidance, minimization, and other Best Management Practices related to conservation of at-risk bats on the landscape. Please use this list to employ Avoidance and Minimization Measures (AMMs) that could be applicable to a project. Please consult with the Georgia Ecological Field Office, FWS, and Georgia Department of Natural Resources to assess potential project impacts related to known roosts and potential cave habitats.

All Projects

- All personnel surveying or monitoring bat populations should implement appropriate WNS decontamination protocols.
- Wetland avoidance/minimization/compensation.
- Dust control.
- Protections of water quality through erosion and sediment control, spill control, runoff detention, and treatment.
- Consider conducting any disturbance activities at night when bats are feeding, starting one hour after sunset, and ending one hour before daylight excluding the hours between 10 p.m. and midnight, and keeping the light localized.

Tree Removal (Habitat Removal)

- High priority should be given to preserve any maternity roosts and nearby habitat. If preservation of a roosting site is not possible, impacts should be minimized to all extent possible and replacement habitat/roosts would be requested.
- If suitable habitat requires removal, use timing restrictions to conduct work when bats are not likely to be using the habitat. Federally listed bats could be actively present in forested landscapes from April 1 to October 15 of any year and have non-volant pups from May 15 to July 31 in any year. Non-volant pups are incapable of flight and are vulnerable to disturbance during that time.
- Ensure any habitat to be cleared is clearly marked to ensure contractors stay within the planned clearing limits.

Man-made Structures

- Ensure each structure is surveyed to assess whether it is being used as a roost by bats.
- Avoid impacts that could disturb roosting bats by performing any maintenance or modifications to structures when bats are not present.
- If structure modification / repair / maintenance is required when bats are present, minimize impacts to roosts when pups are non-volant (May 15 – July 31 in north Georgia; April 1 – July 31 in south Georgia).
- Perform activities in a way that minimizes disturbance to roosting bats.

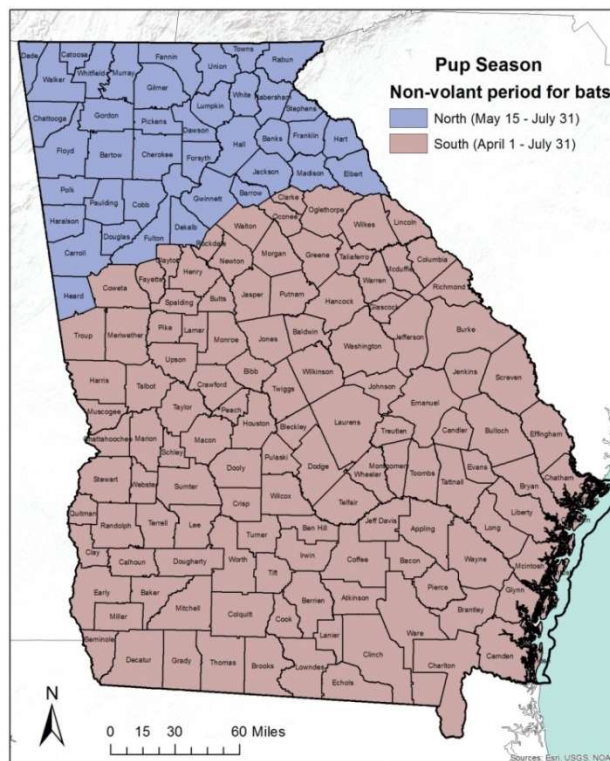


Avoidance and Minimization Measures for Bats in Georgia

- Replace any lost or modified roosting habitat. If artificial roosting structures are used, ensure that the designs are approved by Bat Conservation International (www.batcon.org).
- Ensure that any exclusionary barriers are placed outside of the non-volant pup season to ensure that helpless pups are not entrapped inside exclusion areas.

Cave or Cave-like Habitats / Hibernacula

- For projects within karst areas, priority should be given to preservation of forested habitat within 0.5 mi of known hibernacula or named caves.
- Projects located within karst areas should establish a natural area/buffer of 300 ft. or greater around any cave, sinkhole, losing stream, or spring found within the action area.
- Project drainage plans should ensure that karst areas are not degraded through untreated runoff or that significant runoff does not modify cave entrances.



Lighting

- Direct temporary lighting away from suitable habitat during the active season.
- Use downward-facing, full cut-off lens lights, and direct lighting away from suitable habitat when installing new or replacing existing permanent lights.

Non-volant season for Georgia's bat species. In southern counties the non-volant period spans April 1 to July 31. In northern counties, the non-volant period spans May 15 to July 31.

Blasting

- All blasting activities should assess impacts to karst habitat and nearby caves or cave-like habitats that could serve as hibernacula or maternity roosts.
- Explosive blasting activities must be designed and conducted to face existing roadway corridors or disturbed areas and away from any forested areas within the project.

Solar / Wind

- Siting locations of solar or wind facilities should avoid physiographic features that are commonly used by migratory bat species.